

# Enjoying the Sun Safely

The discovery of a hole in the ozone layer over the Antarctic in 1985 sounded the alarm. Chlorofluorocarbons (CFCs), and other industrial chemicals released into the atmosphere, were destroying the stratospheric ozone, which shields the Earth from harmful ultraviolet (UV) radiation from the sun. Concern about the link between a thinning ozone layer and an increase in skin cancer prompted countries to sign the Montreal Protocol (1987) to phase out ozone-depleting substances.

While small doses of sunlight help the body produce vitamin D, excessive UV radiation damages the skin and eyes. Every year, more than 130 000 malignant melanomas, and between 2 million and 3 million non-melanoma skin cancers arise, particularly among fair-skinned people. Children are most at risk, as exposure to the sun during childhood appears to set the stage for the development of skin cancer later in life.

The Global Solar UV Index, reported on many weather forecasts, is a daily reminder to stay alert in the sun. Encouraging individuals to protect themselves – by seeking shade and wearing suitable clothes – remains the key to preventing 66 000 people from dying from skin cancer every year.

The Montreal Protocol has proved that the world can work together to solve global environmental problems. Hopefully, the lessons learned can help us meet even greater challenges to preserve our planet's and our children's health.



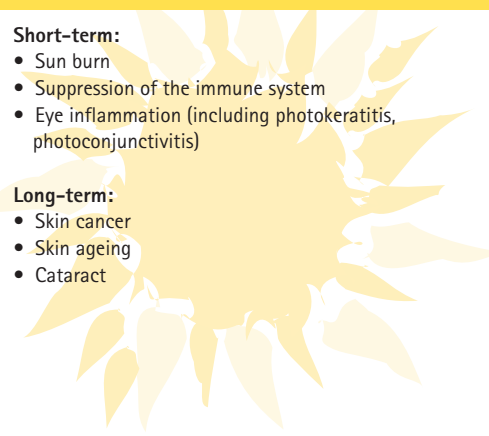
## Dangers of UV radiation exposure

### Short-term:

- Sun burn
- Suppression of the immune system
- Eye inflammation (including photokeratitis, photoconjunctivitis)

### Long-term:

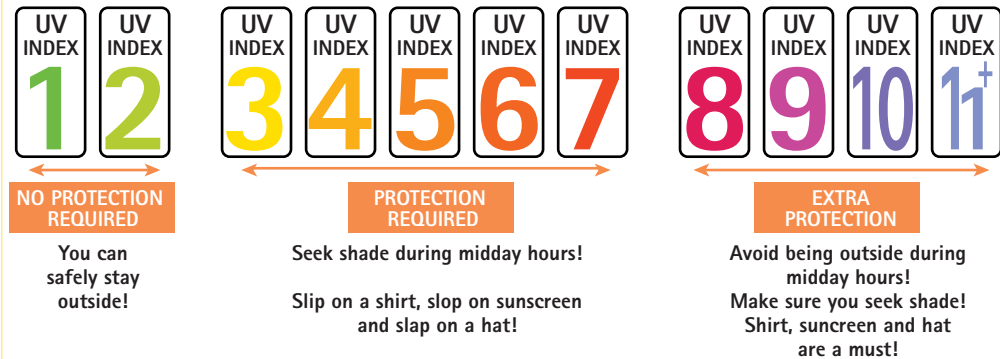
- Skin cancer
- Skin ageing
- Cataract



## The sun's rays

Mean annual UV radiation level  
2003  
banded according to Global Solar UV Index

Melanoma  
countries with the highest melanoma incidence rates 2000



The index describes the level of solar UV radiation at around midday, from zero (no UV radiation) upwards. The higher the value the greater the damage to skin and eyes, and the more care needs to be taken in the sun. UV radiation varies according to the season.

